

FY2012 Jupiter Laser Facility Proposal

Title of Proposed Experiment:

Principal Investigator: *Name*

Affiliation

Position

Mailing address

Email address

Telephone number

Tentative Research Team:

Name and affiliation

Requested Shot Time: *e.g., 4 weeks*

Laser Platform and Special Requests: *e.g. Titan, short-pulse beam only, split beam or Janus, two beams*

All text in blue should be replaced or erased. The proposal should be about 5 pages not including CVs. Use as much space as you need in the following sections; Scientific Goals and Impacts and Methodology will probably be the largest sections.

Proposal Title:**Executive Summary**

One-paragraph summary of the intent of the experimental, method, and scientific impact.

Scientific Goal and Impact

Explain why your experiment is important. Example questions: Will the data resolve or help resolve an extant scientific or programmatic issue? Is the proposed experiment new or an improvement on previous work? What scientific area is affected? What conditions do you expect to achieve? Is the work necessary development for experiments at larger facilities? Include figures and illustrations for clarity.

Methodology

Explain how the experiment will be performed. How do you expect to reach the desired conditions with what laser configuration using which diagnostics? (Specific laser energies or pulse shapes, detailed chamber layouts, and target specifications are not necessary for the proposal, though they should all be achievable. Contact JLF if you have questions.) Are proposed diagnostics new? Will they provide the sufficient data and the precision necessary to reach the goals laid out in the previous section? Have you performed similar experiments at Jupiter or other facilities? If so, that experience should be cited (*e.g.*, as publications).

Laser Requirements

Briefly describe laser system requirements, especially nonstandard requirements. Nonstandard requirements might include a new pulse shape or atypical beam configuration (split short-pulse beam or green short-pulse beam in Titan, prepulse levels – low or high, unusual arrangements). Requested configurations may or may not be achievable. Some configurations require several days of facility maintenance to assemble. Questions should be addressed to the JLF Operations Manager, Jim Bonlie, bonlie1@llnl.gov.

Experiment and Shot Plan

Approximately how many shots will be required? How do you expect to use the weeks requested? If it is likely that you would be prepared early in the fiscal year, October through December, note this fact (The experimental schedule will be created after successful submitters have been notified, which will be in August. There is generally less competition for time in the first 2-3 months of the period.)

Hardware

Briefly describe any diagnostic equipment or other hardware you plan to bring into Jupiter. If you expect to bring a laser into JLF, describe its expected characteristics.

Potential Safety Concerns

If you plan on using toxic materials or potentially dangerous chemicals, or if you expect to create a radiation hazard, please provide some specifics. (Low-level, short-lived isotopes typical of high-intensity shots are not concerns, neither are most common metal and plastic target materials.) If you plan to introduce high-voltage equipment or employ strong magnetic fields, briefly describe.

Experience

Very briefly describe the experience of the experimental team leader (who may not be the proposal PI) and principal team members using high-energy or high-intensity lasers, especially if they are new to JLF.

References

Curriculum vitae

CVs for the PI, experiment team leader and, possibly, principal team members. These should be limited to two pages each.

Submission Instructions. Please label the proposal document with the PI's last name followed by "_JLF12_Platform", where *Platform* is the requested laser; *i.e.*, Titan. If requesting more than one laser platform, use "Multiple" for *Platform*. If the same PI submits more than one proposal, please create unique filenames. Send the completed proposal as a *pdf* document to Robert Cauble cauble@llnl.gov or Beth Mariotti mariotti2@llnl.gov by 15 June 2011.